



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,320	10/15/2003	Mark A. Clamer	05918-340001 / VGCP No.	8855
26161	7590	05/27/2005	6	
FISH & RICHARDSON PC 225 FRANKLIN ST BOSTON, MA 02110			EXAMINER SANDY, ROBERT JOHN	
			ART UNIT	PAPER NUMBER
			3677	

DATE MAILED: 05/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/688,320

Applicant(s)

CLARNER, MARK A.

Examiner

Robert J. Sandy

Art Unit

3677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-75 is/are pending in the application.
- 4a) Of the above claim(s) 72-75 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-71 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/31/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Claims 72-75 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 22 March 2005 (cert. of mail date).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5, 16, 17, 23, 30, 36, 37, 44, 50, 54, 55, 59, 64, 67 and 68 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, as to the following:

In each of claims 5, 23, 30, 44, 50, 59, and 64, there is no antecedent basis for "each crook."

In each of claims 16, 36, 54 and 67, there is no antecedent basis for "the crooks".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

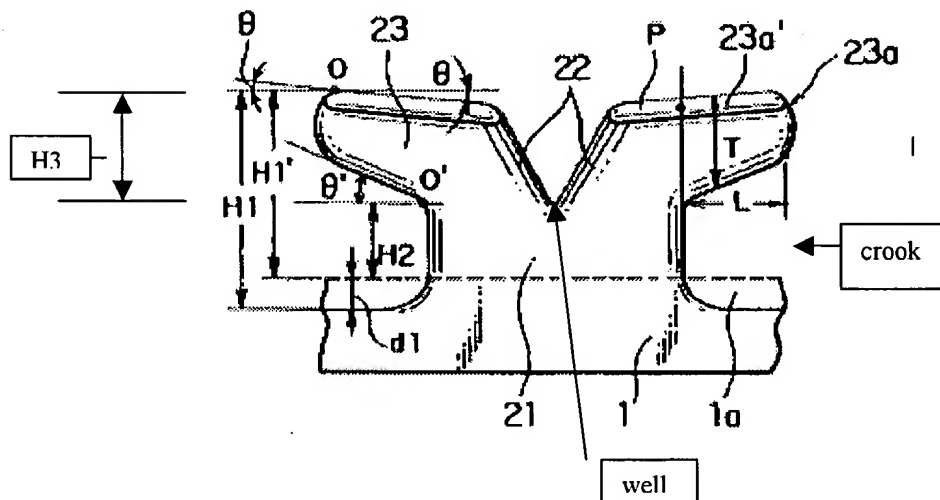
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 6-9, 11-13, 15-17, 25-28, 31-34, 36, 37, 46-49, 51-55, 61-63, and 65-68 are rejected under 35 U.S.C. 102(b) as being anticipated by Akeno et al. (U. S. Patent No. 5,781,969).

Akeno et al. ('969) discloses a touch fastener component (see Figures 1-10) having a base (1) and an array of fastener elements (23; Fig. 1), each of the fastener elements comprising:

Art Unit: 3677

a stem (21) extending outwardly from and integrally with the sheet-form base, and two heads (23) extending in essentially opposite directions in an engagement plane from a distal end of the stem to corresponding tips, the fastener element having an upper surface that defines a well (see Fig. 4B below)

FIG. 4B

between the heads; wherein a height (equal to H2) of a lowermost extent of the well, measured from and perpendicular to the sheet-form base, is less than 60 percent of an overall height (H1) of the fastener element, measured perpendicular to the sheet-form base;

(concerning claim 2) the height of the lowermost extent of the well (H2) is at least about 70 percent of an overall height (H3) of one of the two oppositely-directed heads, measured perpendicular to the base from the tip of the head to an uppermost extent of the head;

(concerning claims 3, 28, 49, 63) wherein each fastener element has an overall length between opposite extents of the heads, measured parallel to the base, of at least 1.8 times the overall height of the fastener element;

(concerning claims 6, 31, 51, 65) an overall height of one of the two oppositely-directed heads, measured perpendicular to the base from the tip of the head to an uppermost extent of the head, is less than 60 percent of the overall height of the fastener element;

(concerning claims 7, 32) Fig. 4B clearly demonstrates a ratio of an overall length of the fastener element, measured parallel to the sheet-form base in the engagement plane, to the height (H2) of the lowermost extent of the well, is greater than 2.5;

(concerning claims 8, 33, 52, 61) Fig. 4B clearly demonstrates wherein each fastener element has a mold release factor, defined as a ratio of a difference between a minimum solid length of the stem, measured parallel to the sheet-form base in side view, and a maximum solid length of the fastener element, measured parallel to the sheet-form base in side view above an elevation corresponding to the minimum solid length, to the minimum solid length of the stem, of less than 0.1 (e.g., as low as zero);

(concerning claims 9, 34, 53, 66) wherein at least one of the heads has an overall height, measured perpendicular to the sheet-form base from a lowermost extent of the tip of the head to an uppermost extent of the head, that is greater than half of an overall height of the fastener element, measured perpendicular to the sheet-form base;

(concerning claim 11) the lower surfaces of the heads are arched (near upper portion of stem);

(concerning claim 12) the heads and stem form a unitary molded structure;

(concerning claim 13) the heads have surfaces of resin cooled against mold surfaces (via 7b);

(concerning claim 15) the stem and heads have side surfaces (Fig. 4C) lying in parallel planes;

(concerning claims 16, 36, 55, and 67, so far as definite) the crooks (portion defined by length L) overhang surfaces of the stem;

(concerning claims 17, 37, 55, and 68) the crooks overhang stem surfaces that extend at an inclination angle of between about 20 and 30 degrees (i.e., angle theta is 0 to 35 degrees; column 10, line 32) with respect to a normal to the base;

(concerning claims 25, 46) the fastener elements are arranged in a density of at least 350 fastener elements per square inch (i.e., "250/cm²", col. 11, line 48) of the base;

(concerning claims 26, 47) the fastener elements together cover at least 20 percent ("35%", col. 11, line 46) of an overall surface area of the base from which the fastener elements extend.

Art Unit: 3677

(concerning claim 27) wherein a ratio of an overall height of at least one of the heads, measured perpendicular to the sheet-form base from a lowermost extent of the tip to an uppermost extent of the head, to a height of a lowermost extent of the well, measured from and perpendicular to the sheet-form base, is greater than 0.7; and

(concerning claim 62) the mold release factor is less than 0.05 (e.g., as low as zero).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 5, 14, 18-24, 29, 30, 38-45, 50, 56-60, 64, and 69-71, are rejected under 35 U.S.C. 103(a) as being unpatentable over Akeno et al. ('969). Akeno et al. ('969) discloses the claimed fastener component except for describing the dimensions of the fastener component, wherein the dimensions are representative of:

(concerning claims 4, 29) wherein each fastener element head tip defines an entrance height, measured perpendicular to the sheet-form base below a lowermost extent of the tip, of between about 7 and 12 millimeters;

(concerning claims 5, 30, 50, 64) wherein a ratio of an overall height of each crook, measured perpendicular to the sheet-form base from a lowermost extent of the corresponding tip to an uppermost extent of the crook, to an entrance height measured perpendicular to the sheet-form base below a lowermost extent of the corresponding tip, is greater than 0.6;

(concerning claims 18, 38, 56 and 69) wherein each fastener element has an overall height of between about 10 and 50 millimeters, measured from and perpendicular to the base;

(concerning claims 19 and 39) wherein each fastener element has an overall height of between about 20 and 30 millimeters;

Art Unit: 3677

(concerning claims 20, 40, 57, and 70) wherein each fastener element head has an overall height of between about 10 and 20 millimeters, measured perpendicular to the sheet-form base from a lowermost extent of the tip of the head to an uppermost extent of the head;

(concerning claims 21, 42, 58, and 71) wherein the height of the lowermost extent of the well is between about 5 and 20 millimeters;

(concerning claims 22 and 43) wherein the height of the lowermost extent of the well is between about 10 and 15 millimeters;

(concerning claims 23, 44 and 59) wherein each crook defines an overall crook height, measured perpendicular to the sheet-form base from a lowermost extent of the tip to an uppermost extent of the crook, of at least 6.0 millimeters; and

(concerning claim 41) wherein each fastener element head has an overall height of about 15 millimeters.

It would have been obvious and within routine skill to one of ordinary skill in the art at the time the invention was made to have adjusted each of the overall dimensions of the fastener component features since dimensional characteristics are routinely selected according to the fasteners intended use. Fastener characteristics regarding overall heights of fastener elements, fastener element heads, and crook, are adjusted to a higher height in applications where the fastener component may be embedded in a foam substrate of an upholstered chair for subsequently attaching a fabric cover thereto. The overall heights of the fastener element characteristics are adjusted to smaller heights for use as conventional touch fasteners for providing a fabric like texture to garment closure fasteners.

Claims 24, 45, and 60, are rejected under 35 U.S.C. 103(a) as being unpatentable over Akeno et al. ('969) in view of Romanko et al. (U. S. Patent No. 6,484,371). Akeno et al. ('969) discloses the claimed fastener component except for wherein the component further comprising a backing material laminated to a side of the base opposite the fastener elements. In view of Romanko et al. ('371), it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a backing material laminated to a side of the base opposite the fastener elements of Akeno et al. ('969), since Romanko et al. ('371) describes and shows a fastener 30 (see Figs. 3a-3g) having a backing material including loops 37, film

Art Unit: 3677

layer 31, and adhesive layer 35 laminated to a side of the base opposite the fastener elements 33, in order to provide "hook-and-loop type a bundling or strap fasteners" (col. 7, line 36) that are well known for their use in bundling articles together, such as bundling cables.

Claims 10 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akeno et al. ('969) in view of Takizawa et al. (U. S. Patent No. 5,537,720). Akeno et al. ('969) discloses the claimed fastener component except for wherein the tips extend toward the base. Takizawa et al. ('720) discloses a fastener component that has tips extending toward the base. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the fastener components of Akeno et al. ('969) to have their tips extending toward the base of the fastener component since Takizawa et al. ('720) makes it known in the fastener art to provide the feature of the tips extending toward the base of a fastener component when such fastener components are used in engaging loops 3 of a mating fastener component.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Akeno et al. ('969). Akeno et al. ('969) discloses the claimed fastener component except for wherein the stem has opposing surfaces defined by severed resin. Claim 14 is directed to a product-by-process claim wherein the process relied upon is a "severed" step in producing the opposing surfaces of the stem. This limitation is not given an patentable weight since the structural limitations of the claimed product are met. by Akeno et al. ('969). It has been held that if the product defined in the product-by-process claim is the same or obvious from a product of the prior art, the claim is unpatentable even though the prior art product was made from a different process. See *In re Thorpe*, 77 F.2d 695, 227 USPQ 964 (Fed. Cir. 1985).

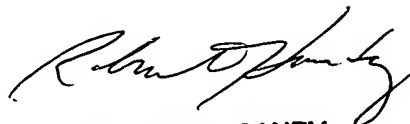
Art Unit: 3677

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert J. Sandy whose telephone number is 571-272-7073. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J.J. Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**ROBERT J. SANDY
PRIMARY EXAMINER**